PÆDIATRICS.

UNDER THE CHARGE OF

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Nephritis in Infantile Scurvy.—THOMAS (*Boston Medical and Surgical Journal*, September 3, 1896, p. 230) calls attention to the frequency with which blood or albumin, or both, has been found in the urine in reported cases of infantile scurvy. He is inclined to think that kidney-trouble of greater or less severity would probably be found in all, or nearly all, of the cases if a microscopic examination were made during the early stages of the disease. In certain cases of Gee, Thompson, Barlow, and Sir William Roberts the kidney-trouble seems to have been the only symptom of the disease.

The author reports a case showing marked disturbance of the kidneys, which, while not the only symptom present, was the first and most marked one. The patient was a girl of healthy parentage, fed from birth upon the bottle. At the age of three weeks she had been overfed by the nurse and began to suffer from digestive disturbances. She was fed upon modified milk until at the age of six months she had an attack of diarrhœa, which yielded after a change in the formula of the milk. After this she failed to gain; each time the food was made more nourishing the digestive trouble returned. Finally malted milk was given in alternate feedings with the modified milk, and the child began to improve. At the age of seven months malted milk alone was given, with half an ounce of cow's milk or cream in each feeding. She continued to gain until eight and one-half months old, when she began to take food badly, was feverish, and passed a smaller quantity of urine than usual, which stained the napkins a dark color. The feverish symptoms subsided in a few days. The urine, now examined for the first time, was distinctly red in color, acid in reaction, of a sp. gr. of 1012, and contained a trace of albumin and much blood. The microscope showed normal and abnormal (shadow) red corpuscles, numerous leucocytes, a few renal cells, and very rarely a hyaline cast. The next day the gums about the four central incisors were swollen and red. The food was now changed to a mixture of milk, cream, and water, unsterilized, with beef-juice and orange-juice. The general condition quickly improved, but it was five weeks before the urine was perfectly normal.

The author therefore feels warranted in concluding that in infantile scurvy the kidneys are probably affected in a large proportion of the cases, at least during the acute stages, and that this catarrhal nephritis is probably caused by the presence of an irritant in the blood, which by its effect upon the walls of the renal vessels produces hemorrhages; that cases occur in which the renal symptoms are the first, or perhaps the only ones observed; and that in suspected cases the condition of the urine may lead to an early diagnosis and possibly to the prevention of severer symptoms of the disease.

Conclusions Concerning Lumbar Puncture.—WENTWORTH (*Boston Medical and Surgical Journal*, August 6, 1896, p. 139) presents a valuable experimental study of lumbar puncture founded upon twenty-nine cases. His conclusions are quoted as follows:

1. The normal cerebrospinal fluid contains neither cells nor fibrin and is perfectly clear.
2. In cases of meningitis the cerebrospinal fluid is invariably cloudy when withdrawn. The degree of cloudiness is to some extent proportionate to the amount and character of the exudation in the meninges.
3. The cloudiness is caused by cells. The character of the cells differs with the variety of meningitis. After withdrawal more or less fibrin is formed in the fluid. The presence of these cells and fibrin is pathognomonic of inflammation in the meninges.
4. The cloudiness is oftentimes so slight that close observation is necessary to detect it.
5. The operation is not difficult to perform on infants and children. It is not dangerous, if strict cleanliness is observed.
6. The differential diagnosis between the various kinds of meningitis can be made by microscopic examination of the sediment, by cultures taken from the fluid, and by inoculation-experiments.
7. Inoculation-experiments afford the surest means of determining tubercular meningitis. They are of value to distinguish between the varieties of meningitis in order to determine if tubercular meningitis is recovered from.
8. In the normal fluid a faint trace of albumin is usually present, about one-fiftieth of one per cent., or less, by quantitative analysis. In meningitis the amount of albumin is increased, and has varied from one-thirtieth to one-tenth of one per cent.
9. In one case a diagnosis of general infection with the staphylococcus pyogenes aureus was made from cultures taken from the cerebrospinal fluid.

The Action of Streptococci upon Diphtheria-cultures.—By mixing cultures of the streptococcus with those of the Klebs-Loeffler bacillus BONHOFF (*Hygienische Rundschau*, 1896, No. 3, S. 97) has observed a considerable increase in the virulence of the latter. The dose necessary to kill a guinea-pig was much less than that required for a culture of the diphtheria-germ. If the dose was decreased to the point of permitting life for two to three weeks, there was observed, besides emaciation, a diminution in the secretion of urine, which became sanguinolent. The autopsy showed especially profound alterations in the kidneys visible to the naked eye. The glomerules were swollen and projected above the cut surface. The microscope showed the shedding of epithelium from the urinary tubules and the presence in their lumen of numerous altered red globules. These lesions cannot be obtained with pure cultures of the streptococcus, but only by adding to the diphtheria-cultures the toxins of streptococci obtained from cultures four weeks old.